



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of: John E. Sims and Dirk E. Smith

Docket No.: 0317-US

Serial No.: 09/763,498

Group Art Unit: 1647

Filing Date: May 15, 2001

Examiner: F. Hamud

For: Human IL-1 epsilon DNA and Polypeptides

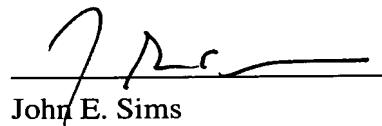
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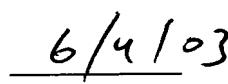
DECLARATION UNDER 37 C.F.R. § 1.132

Sir:

I, the undersigned, do hereby declare and state:

1. I am one of the co-inventors of the invention described and claimed in above-referenced patent application.
2. At my request and under my supervision, an IL-1 epsilon polypeptide having an arginine at residue 12 was expressed and tested for biological activity using a human breast cancer cell line lacking the estrogen receptor that was initially named MCF-ADR and is now referred to as NCI/ADR-RES.
3. Purified arginine-12 IL-1 epsilon was assayed for the ability to stimulate phosphorylation of signaling molecules JNK and ERK in a manner similar to that described in Example III of the instant patent application. As shown in the attached reproduction of a Western blot, arginine-12 IL-1 epsilon activated JNK and ERK in NCI/ADR-RES cells, as did the positive control, IL-1 beta.
4. Purified arginine-12 IL-1 epsilon was assayed for the ability to stimulate cytokine secretion in a manner similar to that described in Example VI of the instant patent application. As shown in the attached bar graph, arginine-12 IL-1 epsilon stimulated secretion of IL-6 and IL-8, as did the positive control, IL-1 beta.
5. I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


John E. Sims


Date



Activation of JNK and ERK in NCI/ADR-RES cells treated with IL-1 ϵ (1mg/ml) and IL-1 β (10ng/ml) for various amounts of time.

Western blot analysis showing JNK and ERK1/2 phosphorylation levels over time for IL1 and F6 conditions. The figure consists of two panels: JNK (left) and ERK1/2 (right). Each panel has a top row of blots for 'JNK total' and 'ERK1/2 total' and a bottom row of blots for 'JNK phospho' and 'ERK1/2 phospho'. Lanes are labeled with time points: IL1, 60min, 30min, 15min, 10min, 5min; F6, 60min, 30min, 15min, 10min, 5min; and media. Molecular weight markers (50, 35 kDa) are indicated on the left.

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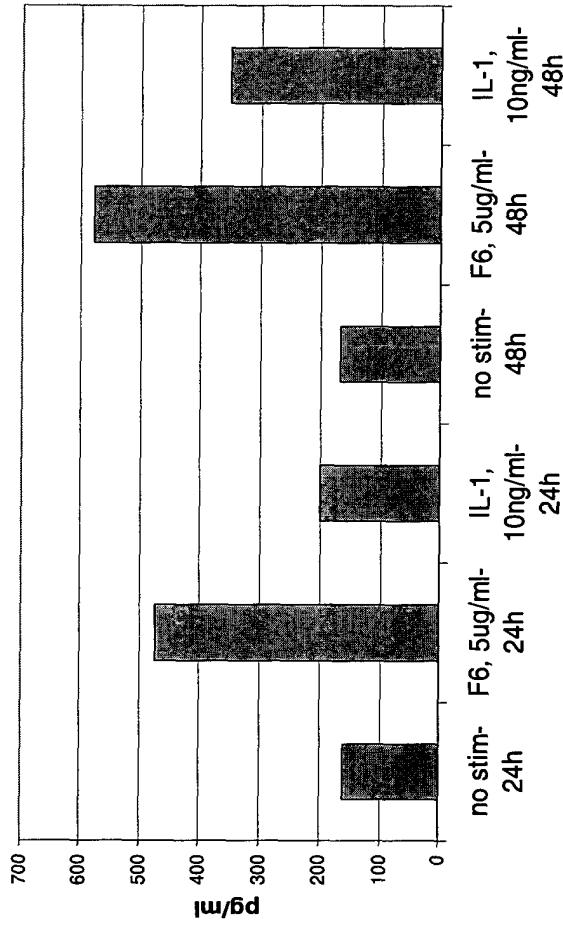


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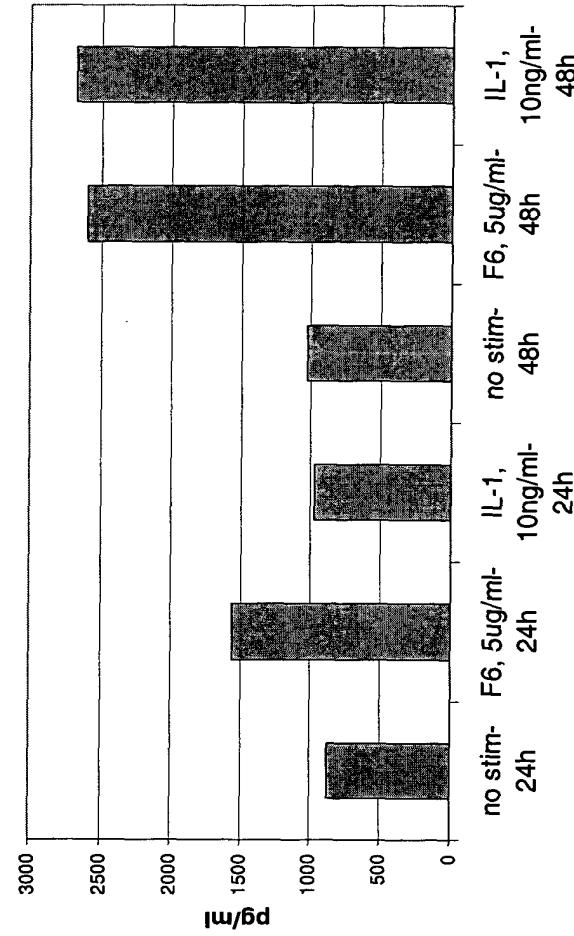
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NCI/ADR-RES cells treated with IL-1 ϵ (5ug/ml) or IL-1 β (10ng/ml)
for 24 or 48 hours – luminesx analyses.



IL-8



IL-6